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"I do still love the taste": taste as a reason for eating non-human animals.
Guy Cook and Clyde Ancarno

Abstract

Sensory experience is frequently evoked in literature, and this sometimes includes descriptions of tastes. After considering the effects of taste in a famous passage by Proust, we next discuss their biological and social basis. Then, using techniques from linguistics, and drawing upon data from a three-year project investigating language used about animals, we explore the role of taste in decisions about meat eating, as reflected in the discourse of food marketing, personal reflections in focus-group discussions, and other elicited material. Meat production has environmental consequences, but decisions about meat eating are driven predominately by symbolism, sensuous pleasure, and personal significance.

... never meat sweet-savor'd in thy taste,
Unless I spake, or look'd, or touch'd, or carved to thee.
The Comedy of Errors 2 ii, 89-90

1. Why taste is of interest to Ecocriticism

Patterns of food production and consumption have immense environmental impact. While much public discussion of meat eating centres on economic, environmental and ethical issues, and is based on reasoned arguments and facts, the contention of this article is that justifications of meat eating also have a more physical and less rational element which is more fully captured in the discourses of literature, marketing and reflection on personal experience. Many people do not confront the ethical and environmental implications of their meat eating. The impact of industrial farming, or even the fact that meat is dead animal flesh, are often either not considered in justifications of meat eating, or treated as less significant than meat eating as a physical, personal and social experience. Meat eating for many remains solely a matter of taste, in both the biological and social senses of the word.

By combining ecological themes with a focus on an embodied and emotional engagement with food of the kind found in literature, this article’s critique of the contradictions inherent in justifications of meat eating fits well with the ethical and philosophical aims of Ecocriticism, as it furthers exploration of “the meanings of the natural environment and the complexities of human relationships with each other, and with the more-than-human world” (ASLE). On the one hand, human food choices have an obvious impact upon the environment, especially when accompanied by exponential population growth, climate change and diminishing resources. On the other, literature has much to tell us about the emotive and social power of food, as now widely recognised in literary studies:

“Literary critics who write about food understand the use of food in ... works of literature can help explain the complex relationship between the body, subjectivity and social structures regulating consumption.” (Fitzpatrick, 122.)
Although this article is not centrally concerned with literary analysis, our contention is that the insights of literature into food choice and its meaning may serve as a starting point, when considering food choice in the real world, to look beyond the merely economic, and recognise the strength of other, less rational and tangible factors.

To do this, and in illustration, we begin with some—albeit somewhat selective and arbitrary—literary references to the taste of food. We then embark, in the main part of the article, on a more systematic and rigorous examination of references to taste and to meat in data from our own research. In our analysis we hope to show that non-literary discussion of food—in marketing, personal reminiscences and conversation—share with literature an emphasis on food as a sense experience.

1.1 Tasting in literature

The emotive power of the taste of food is not infrequently evoked in literature. Successful writers understand well its role in intense personal experience, evaluation and reminiscence, and the vivid sensations which gustatory imagery can evince: how taste is much more than just a physical sensation.

To give a few examples of the kind of literary approach to which we refer [NOTE1]: Madeline's sensuous dream in Keats' *St Agnes Eve* includes

   jellies soother than the creamy curd,  
   And lucent syrups, tinct with cinnamon

William Carlos Williams' description of the plums in the icebox as "delicious/ so sweet/ and so cold" resonates with symbolic implications. Edward Thomas' food and repose in *The Owl*, was "salted" by the thought of those without shelter. A character in Robert Frost's *Blueberries* observes that

   It must be on charcoal they fatten their fruit.  
   I taste in them sometimes the flavor of soot.

For Seamus Heaney in *Blackberry Picking*

   once off the bush  
   The fruit fermented, the sweet flesh would turn sour.

In a particularly famous and often-cited passage of Marcel Proust's *A la recherche du temps perdu*—perhaps the most well-known reference to taste in the literary canon—the narrator recounts how an experience late in life transported him back to his childhood. It crystallises some key characteristics of taste, which we shall pursue in other non-literary data:

   No sooner had the warm liquid mixed with the crumbs touched my palate than a shudder ran through me and I stopped, intent upon the extraordinary thing that was happening to me. An exquisite pleasure had invaded my senses, something isolated, detached, with no suggestion of its origin. (.....)
Whence did it come? What did it mean? How could I seize and apprehend it? ... And suddenly the memory revealed itself. The taste was that of the little piece of madeleine which on Sunday mornings at Combray (....) my aunt Léonie used to give me, dipping it first in her own cup of tea or tisane. The sight of the little madeleine had recalled nothing to my mind before I tasted it. And all from my cup of tea. (Proust 48-49)

Here, taste is presented as a visceral, private, internal, sensuous, even sensual experience ("a warm liquid touched my palate", "an exquisite pleasure invaded my senses", "a shudder ran through me"), and it is intimately connected to memory and to childhood. The narrator observes how in these respects taste had a power and effect beyond the sensory experience of sight, which had "recalled nothing".

1.2 Tasting and nostalgia

It is not only in literature that the role of taste in creating pleasurable eating has been explored. Food Studies, in addition to concern with the economics, environmental impact, strategic importance and health implications of food production and consumption (see Albala), has also addressed the role of taste in food decision making (Forrest and Murphy), and the error of relegating its importance. Sociologists and historians of food (Dalby, Ferguson 2004, 2011, 2014, Sutton) have emphasised its influence, while writers on the politics of food (Lien and Nerlich) have also stressed the emotional and mnemonic power of food taste and smell in identity. Ben-Ze’ev writes of its political importance to Palestinian refugees in maintaining their attachment to their homeland, and Haukanes of how attachment to familiar patterns of meat eating can quite overwhelm rational decision in the face of health concerns such as that relating to BSE.

Exploitation of the sensuous and mnemonic power of food is also evident in food writing and promotion, a discourse which, sharing literature's preoccupations with personal experience and association, has at times a quasi-literary flavour. In a linguistic analysis of descriptions of desserts by leading women food writers Courtenay finds frequent instances of taste described, in a manner superficially reminiscent of Proust, as an intense pleasure evoking childhood memories such as:

The pink milkshake icing tastes so much of my childhood that if I close my eyes and take a great big bite I might as well be back in junior school! (Bell 184)

Such desserts evoke not only a personal past, but also a sense of "old-fashioned" tradition. They also give rise to exclamations of extreme delight.

... this is the coffee dessert – the best ever! It is based on an old-fashioned recipe for honeycomb mould (....) it tastes absolutely divine. (....) The contrast of the unsweetened coffee cream mingling with the sweetened sauce and a generous amount of pouring or whipping cream is just gorgeous. (Smith 459)
Although these opening examples from Proust and cookery books concern cake and desserts rather than meat, we hope to show that the general characteristics of taste which they evoke (its associations with childhood and sensuousness) are relevant to our analysis of meat eaters’ own justification of their practice. In these debates justifications, emphasis on the taste of food reflects the fact that, in everyday discourse, as in literature, experience and decision-making have a sensuous and symbolic basis, as well as one in rational discussion and consideration of facts. To amplify these two dimensions of sensuousness and symbolism we first consider the physical nature of taste (its biological basis), and its symbolism and importance to identity (its sociological role).

1.3 The biology of tasting

The deep connection of taste to identity and memory has a bodily foundation. Taste is in some ways the most fundamental, deeply personal, physical, and intimate of all sensory experiences. It must involve touch on the tongue, a particularly sensitive organ. It happens inside us, in our mouths, and is not usually shared with those around us, as are ambient sights and sounds. Together with touch and smell, to which it is closely related, taste is also often linked to sexual experience - though this may be overlooked in a consumer culture where sexuality is often commodified and virtual, reduced to the solely visual. In Food Studies it has been observed how in Western culture taste is relegated to the bottom of a “hierarchy of senses”, and regarded as inferior to the visual and auditory (Forrest and Murphy 254). (See also Pennycook 56-69.)

Biology tells us that taste receptor cells are clustered in taste buds on the surface of the tongue and respond to dissolved molecules and ions (tastants) triggering action potentials in a nearby sensory neuron leading back to the brain (Finger et al., 2000). The different ways in which these receptor cells admit or bind to these ions gives rise to the five primary taste sensations: salty, sour, sweet, bitter, and umami (the savory taste particularly but not exclusively associated with meat). Newborn infants sense all of the primary tastes except saltiness (Beauchamp et al.) and can discriminate between tastes before they can make sense information appealing to the other senses. So it is not surprising that childhood tastes and smells have a particularly evocative emotional resonance. As Fudge observes in her 2002 book Animal: "What is imbibed in childhood is impossible to leave behind" (110).

Tasting is moreover a prelude to ingesting something external, potentially dangerous, or even fatal, into our bodies, suggesting an evolutionary basis for the fine tuning of taste discrimination in omnivores (Pollan 106). A parent may not be aware of dangerous tastes as they are of dangerous sights and sounds, making it important for infants to distinguish for themselves. It is perhaps partly due to a lingering remnant of this inbuilt safety device, that we adults still like to feel safe and secure in what we eat, hence the role of habit and tradition in cuisine. In the UK, for example, there is a current finite repertoire of what meats are permitted (beef but not horse, pigs but not dogs etc.) and of what is considered appropriate for breakfast (porridge but not rice pudding, bacon but not lamb chops).

1.4 The sociology of tasting
So there are some biological explanations of the power of tasting, which help to elucidate the importance of taste in literature and other discourses of personal experience. There are also sociological ones. In addition to referring to a sense, taste also has a derived metaphorical and much more abstract meaning—as in the phrases good taste and bad taste—of critical judgment, discernment, and refinement, or the abstracted personal quality when we say that someone has taste. It is in other words fundamentally concerned with evaluation. As so often in language use, a word denoting a bodily experience is metaphorically extended to denote a more abstract meaning. This metaphorical extension of physical taste is found across languages: French goût and Japanese aji, for example, both have similar basic and extended meanings as English taste.

Taste in both its literal and its metaphorical extension is discussed by Bourdieu in Distinction: A Social Critique of the Judgment of Taste, where he argues that judgments of taste are acts of social positioning especially "in the ordinary choices of everyday existence, such as furniture, clothing, or cooking" (77). With reference to food taste preferences, and echoing the association of taste with childhood and memory discussed above, he writes that they are typically formed “from earliest childhood” (177) and that “the strongest and most indelible mark of infant learning” is found in tastes of food (79). He goes on to note that meals served on special occasions are “an interesting indicator of the mode of self-presentation adopted in ‘showing off’ a life-style” (79). Children from the lower end of the social hierarchy are predicted to choose “heavy, fatty, fattening foods, which are also cheap”, opting for “plentiful and good” meals as opposed to foods that are “original and exotic.” (79)

1.5 Tasting and gender

Taste then is intimately connected to bodily sensation and to personal and social identity. Many commentators and researchers have also noted the role of food preferences in gendered behaviour. Both Barthes and Bourdieu claim that men display their social status by eating meat.

Meat, the nourishing food par excellence, strong and strong-making, giving vigor blood and health, is the dish for the men, who take a second helping, while the women are satisfied with a small portion.” (Bourdieu 190[NOTE2])

Adams, in The Sexual Politics of Meat, also observes how men are given larger portions of meat as the "best" food, associated with maleness, while vegetables are viewed as women's food, which then by association "become viewed as ‘feminine’, passive", and suggests this is reflected both in language used about meat and the particularly patriarchal structures of meat based economies (44-46). Fiddes (144-165) also argues that while men are preoccupied with meat, women tend to focus more on other foods, and Sobal asserts that:

"[M]en and women ‘do gender’ by consuming gender appropriate foods. Meat, especially red meat, is an archetypical masculine food. Men often emphasise meat, and women often minimize meat, in displaying gender as individuals."
Such claims also find some support in empirical research in linguistics, psychology and consumer research. Jurafsky (103) reports, from a corpus linguistic analysis of one million restaurant reviews, "that women are more likely than men to mention desserts in their review". Loughnan, Bastian and Haslam survey evidence supporting their claim that "people who value masculinity, enjoy meat and do not see it as a moral issue, and find dominance and inequality acceptable, are most likely to consume non-human animals". Rozin et al. establish a metaphoric link in Western cultures between meat and masculinity using six different measures. Support for the relation of meat consumption to masculinity is also provided by statistics showing a greater number of women to be vegetarian than men[NOTE3].

Attitudes to food in general and meat in particular thus have a role to play in social and personal identity in a number of ways. In the next section, we want to illustrate from the perspective of our own linguistic research how reference to the taste of meat functions in arguments about whether or not humans should eat non-human animals.

2. Taste as a word

2.1 Linguistics and Ecocriticism

Linguistic analysis can show how certain word choices occur and behave in language used about a particular topic such as, for example, ecology. It thus has an important contribution to make to Ecocriticism, and can expand the enterprise's interdisciplinary basis and authority. The focus on linguistic detail also, of course, resonates with literary criticism.

The overall integration of linguistics research with ecology is sometimes referred to as Ecolinguistics—a neat partner to the term Ecocriticism. Our own research within Ecolinguistics has been on language used about non-human animals and how these choices reflect or contribute to different practices involving non-human animals (for example eating them or not) and beliefs about them (such as whether they are equal or inferior, similar or different, should be accorded rights). There is now a growing ecolinguistics literature on language about non-human animals (e.g. Dunayer; Tannen; Fill and Mühlhäusler; Gilquin and Jacobs; Goatly; Cook, Reed and Twiner; Stibbe, 2012, 2014, 2015; Sealey and Charles; Sealey and Oakley, 2013, 2014; Cook, Cook and Sealey), as well as works which, while from disciplines other than linguistics, conduct complex and sophisticated analysis of how language about non-human animals reflects beliefs and ideologies (e.g. Crist; Dupré; Fudge, 2002, 2008; de Mello 284-287; Pennycook). We hope to contribute to this growing literature.

In the analysis that follows, we focus upon the behaviour of the word taste (henceforth just taste)[NOTE4], firstly in personal reflections on whether or not to eat non-human animals, and secondly in meat marketing. Our contention is that these two types of discourse, in their different manners, emphasise the sensuous, emotional and symbolic power of taste, in ways not dissimilar to that observed by Proust, and that such factors can take on a major role in food choice.

2.2 Methods
Our analysis of *taste* draws upon the data collected for the research project ‘*People*, ‘*Products*, ‘*Pests*’ and ‘*Pets*’ conducted at King’s College London and Lancaster University (both in the UK) from 2013-2017. The project uses a methodology which we refer to as three-dimensional discourse analysis (3DDA) which correlates three kinds of data:

- a corpus of texts which can be analyzed automatically using corpus linguistic software to reveal frequent and recurrent patterns of wording, relating them to particular sources and contexts;
- transcripts of interviews with producers of the kind of texts we have in the corpus, in which they comment on their own and others' choices of wording;
- transcripts of focus groups whose participants react to and discuss the language of texts about animals.

The correlation of analysis of the three datasets allows a rich picture to emerge of the discourse around the topic under investigation, allowing insight not only into the language used to talk and write about non-human animals, but also the views on that language of those who create it and respond to it. For further discussion of this analysis used in research into the language round GM foods see Guy Cook’s *Genetically Modified Language*. (See Appendix for full details of sub-corpora, interviewees and focus groups in the project.)

### 2.3 Collocations of taste

So how does *taste* occur in our data, and what can we infer from the way it occurs about rival stances on the eating of non-human animals? Does it have the same kind of emotive resonance as it does in literary discourse? One of the most powerful operations performed by automated corpus analysis software is to produce concordances identifying short spans of text in which a target word or phrase occurs, and centering that "node item" in a table of such short spans (see Table 1), so that the company this node word keeps—i.e. words and phrases which commonly occur with it—becomes apparent.[Note5] Each line in the concordance is a brief extract of the words immediately before and after the occurrence of the target word. Common co-occurrences of words are known in linguistics as collocations. Concordances of *taste* in a very large general corpus, called *enTenTen13*[Note6], reveal that, when used to refer to the sense perception rather than the extended metaphorical sense of general discrimination, *taste* is often associated with evaluation, commonly occurring in collocations such as *delicious/succulent/great taste, love the taste* etc.

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**Table 1 about here.**

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Interestingly, this relation to evaluation in contemporary use echoes the etymological origin of the word *taste* which derives from the Latin *taxare*, meaning *to evaluate* or *to handle*.

### 2.3.1 In personal discussion and reflection

This tendency for descriptions of taste to focus upon emotional evaluation is also found in our project data. It is particularly clear when the tone of the discourse is conversational and colloquial as it is in our focus-groups. In one focus group we
brought together vegetarians and meat eaters to discuss their reasons for their different diets. All participants were friends and one of the vegetarians and one of the meat eaters were partners, so the general tone was personal and relaxed, as is clear from the following extract (P=participant):

P1: I don’t like pork but I quite like hog roasts  
P2: but if it’s an actual pig I’m like, yeah!  
P3: It’s really weird. The only reason I don’t eat meat now is because I can see the animal. Like I used to love black pudding, haggis, like, I still do love the taste of them, don’t get me wrong, probably, but I, it’s the visualization of what I’m eating, and the animal, that just stops me now. I just can’t go near it.  
P1: So you see hog roast says to me, happy pig. I don’t know why.  
P3: Happy pig with a spike through it!

Indeed, of the eight occurrences of taste in the transcript of this discussion, six occur with evaluative words: love (x2), like, well good, better, great.

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Table 2 about here.
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All occur in the context of personal justification and introspection on the subject of meat eating by the speaker. The relation of such uses to personal narrative and introspection is similarly clear from another one of our sub-corpora capturing everyday discourse about animals. This consists of 103 elicited accounts generated by a Mass Observation Project directive on “Animals and Humans”, developed by one of the project consultants, Nickie Charles (see Sealey and Charles). These texts were produced as responses to a series of questions and prompts beginning with, “What do animals mean to you?”

Here again, though taste is not particularly frequent (see Table 3 below), evaluative words, such as love, like, enjoy, missed, delicious, better, are found in 13 of the 29 overall occurrences of taste. The reason for the scarcity of reference to the taste of meat in this large corpus (of 174K words) is a very simple one: that modern people generally observe a strict categorical division between animals and meat—despite the obvious connection! —so a question about the role of animals in their lives does not evoke thoughts about the kinds of animals which they—as urban dwellers whose experiences with real animals are limited—have perhaps encountered most frequently: dead chickens, dead sheep and so on. This categorical separation has often been observed, both anecdotally and in research, and explained as a mechanism which enables meat eaters to avoid reflecting on their actions. In English, the lexicon even encodes this separation, by often having different words for the animal and its meat, such as beef/cow, mutton/sheep, pork/pig, deer/venison (Fudge 2002, Trampe, 333, Stibbe 2012).

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Table 3 about here.
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2.3.2 In fact-oriented genres
Taste in this personal introspective data then behaves in a similar way, and has the same kind of evaluative resonance as it might in literary discourse. But taste does not behave in this way in less personal discourses. Its use is not evaluative in our sub-corpus of scientific journal articles, presumably because matters of individual preference and emotional response are not considered a proper focus of attention (see Table 4).

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*Table 4 about here.*

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Likewise in our sub-corpus of transcribed wildlife broadcasts, taste often occurs as part of an apparently rational and relatively unemotional discourse. So taste, used evaluatively, seems to belong more to the overtly subjective discourse of the personal and the intimate—exchanges of views in fairly casual interaction, introspection, reminiscence and self-justification—rather than texts purporting to be rational and factual.

### 2.3.3 In marketing

The emotive and personal nature of taste is further evidenced by its prominence in meat marketing, which exploits some of the notions of taste as an intense pleasure and link to the past which we observed in our opening remarks on literature. It seeks also to adopt the tone of interpersonal, conversational, evaluative discourse, which we observed in our focus groups and Mass Observation sub-corpus. Concordances show this marketing discourse to be, like them, focused upon evaluation and emotion (Table 5).

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*Table 5 about here.*

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Corpus linguistic software allows us to ascertain if there are words in one of our sub corpora which are being used much more frequently than in another. As will be clear from Table 6, taste occurs with unusual high frequency in our meat marketing sub corpus, 15 times more frequently than in the Mass Observation sub-corpus, and 243 times more frequently than in the journals sub-corpus!

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*Table 6 about here.*

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In addition, we can compare the word frequencies in the corpus under investigation with another corpus, known as a reference corpus, to reveal *keywords*, i.e. unusually frequent[NOTE8] words (Scott 236). This procedure applied to our sub corpus of marketing texts, using the *enTenTen13* corpus as a reference, shows a number of words relating to the sensorial meaning of *taste* to be keywords, including delicious/ly, flavor, flavorsome, mouth-watering, and succulent.
Meat marketers thus seem to feel that one of their strongest cards is appeals to tastiness, and that this factor will persuade people to buy their products. As noted by Cook, Reed and Twiner

“The overwhelming emphasis in food labelling is on sensuality and self interest: tastiness, low cost, and health benefits (though claims can raise legal complications). Even the organic movement tends now to put their faith in conventional market tactics, believing that persuasion will be best achieved by appeal to emotion and self interest, rather than by arguments about the social and environmental advantages of organic agriculture. In its list of ‘Ten Reasons to Buy Organic’, The Soil Association (the main UK organic campaign group and certification body) at one time moved its alliterative slogan ‘Top for Taste’ to first position and demoted ‘Good for Wildlife’ from number one to number ten.”

As one food package writer interviewed for a predecessor project[NOTE 9] put it:

I know this packaging and I know that, yes succulent’s a difficult word but how the hell do you give the sense of flavor without words like that? I spend a lot of my time making sure that what I write is factually accurate so to speak, but also hopefully presses those nice touchy, feely buttons which I actually think is part of the reason why consumers buy organic. In other words it’s the feel good factor.

Significantly, given the association of taste with nostalgia presented in our opening section, this strategy is often coupled with a particularly idyllic representation of bucolic farms and countryside, together with images of happy family life, as in the following quasi-literary example from a piece of meat packaging:

Waitrose organic Chipolatas are made from selected cuts of belly and shoulder of pork from organically reared, English pigs. The pork is coarsely chopped and blended with herbs and spices to produce succulent and full flavoured chipolatas. Our organic pigs are reared outside with freedom to root and roam on selected farms in Norfolk and Lincolnshire. James Keith supplies Waitrose exclusively, with pigs from his farm in Norfolk. The pigs are reared outdoors throughout their lives in small family groups and fed on a balanced cereal diet with vitamins and minerals. Warm shelters and straw bedding protect them from winter, while mud baths keep them cool in summer. James’ expertise, care and commitment to the more extensive nature of organic farming ensures we deliver consistently high quality and traceable sausages.

The word family occurs with marked regularity (160 times, equivalent to 1,610.53 per million) in our meat marketing corpus of 85,844 words, referring either to the non-human animals being bred for slaughter, or the families of the farmers who rear them. We are frequently told of farms handed from father to son for generations, of family-run shops and farms, and of family groups of pigs for example. While this may have some semblance of truth in the descriptions of some organic and other small scale
livestock farming, which comprise the origins of about half the texts in this sub-corpus, it is very far indeed from the realities of industrial farming, which produces by far the largest proportion of meat in the UK, where our data was collected.

2.3.4 Meat animals in the contemporary world.

For most people in the rich world, farm animals are generally encountered only as prepared and packaged pieces of meat. In the contemporary UK, for example, while cows and sheep can still be seen on farmland, pigs and chickens are hardly ever on view, despite the very large numbers of both kept out of sight in factory farms and abattoirs. This invisibility of 'farming' and slaughter in contemporary society is often remarked upon in the Animal Studies literature (Mizelle; Animal Studies Group; Pollan 226-239; Trampe) and was also noted by our interviewees and focus-group participants. The more non-human animals that are killed, it seems, the more hidden away that killing becomes. In our own research, covering a wide range of human-animal interactions, we experienced particular difficulty obtaining interviews and focus group data from anyone connected with industrial meat production. While those involved in small-scale and organic meat production were happy to talk to us, those involved in large-scale production were reluctant. Thus while we did gain access to an organic abattoir, and held a successful interview with its very helpful education officer, and discussed organic slaughter with the policy director of the Soil Association[NOTE10], attempts to contact the non-organic industrial sector proved much more difficult. Although we did conduct an interview with "a communications officer working in an organization associated with the meat industry" (as she stipulated that we should describe her), she would not allow us to name either her or her employer in our findings. While we successfully recruited and conducted focus groups with farmers and butchers dealing with meat produced on a small scale, attempts to recruit a focus group of industrial abattoir workers were blocked by management in several places; the closest we came was an offer by one abattoir to allow us to hold a focus group, but only in the presence of the participants’ manager, who would remain silent—an offer which we declined. This was in marked contrast to all other interest groups and spokespersons we approached across a wide range of areas and activities (see Appendix), all of whom, with only one other exception[NOTE11], were willing and eager to discuss their activities and beliefs on record.

The experience bears out the widespread belief that the meat industry is keen to keep its practices out of the public eye, on the assumption that the majority of contemporary meat consumers would be deeply alienated by knowledge of how animals in the non-organic sector are generally reared and killed for meat. While the majority of meat eaters are content to see, handle and consume animal flesh which has already been butchered and packaged, they do not see, and might react very negatively to, direct experience of contemporary industrialised factory farming and slaughter.

How strange then, given an unwillingness to confront the physical realities of slaughter and butchering (as mentioned by several of our interviewees and focus group participants), that this general sensitivity does not extend to the most intimate encounter of all: putting a piece of dead animal in the mouth, on the tongue, tasting it, swallowing it, and ingesting it into the body. There seems to be a double standard
here. Why should that be? Our contention, which we go on to develop in our final section, is that this "meat paradox" (Loughnan et al.) derives largely from the power of taste in human experience.

3. Taste as a dominant "reason"

3.1 Reasons for eating animals

In many contexts, justification of meat eating tends to be expressed in rational rather than emotional terms. One of our interviewees, Sir David Attenborough, provided an example in his interview with us.

I mean if there were such a thing as biological morality which is a questionable concept... But if there were then one might say that biologically one is adapted to omnivory and that my teeth, my guts and so on entitle me to eat meat. It’s a questionable bit of logic but that’s what I think and indeed one knows of kids of whom doctors say ‘you are not well and the reason why you’re not well is because you’re not having a balanced diet’. And by ‘balanced diet’ they don’t mean vegetarianism.

Here he deploys two very widely evoked justifications, while simultaneously casting some doubt on them by calling both “questionable” and acknowledging the assertive nature of his claims (“but that’s what I think”): one is that Homo sapiens has evolved to eat meat and that our bodies are adapted to do so; the other is that meat is part of a healthy and balanced human diet. Joy considers both of these in her critical discussion of reasons for eating meat, and adds another: that it is perceived as "normal", i.e. widespread and socially acceptable. This leads her to formulate the neat notion of "Three Ns". People perceive meat eating as: Natural, Necessary, and Normal. What this neat mnemonic lacks however is any reference to emotional and less rational motives of the kind evoked in literature, personal discussions, and food marketing, as illustrated in our earlier sections.

This omission is to some extent addressed by Piazza et al. who, using elicited justifications from student meat eaters in the USA, build on this summary to add a fourth N: that eating meat is perceived as Nice. The resulting "Four Ns" (part of the title of their article) are as follows (with some typical elicited responses alongside each to characterise them)[NOTE12]):

The Four Ns. (Meat Eating is regarded as):
Natural "Humans are natural carnivores"
Necessary "Meat provides essential nutrients"
Normal "I was raised eating meat"
Nice "It's delicious"

Piazza et al. describe the 4Ns as "a pervasive tool employed by individuals to diffuse the guilt one might otherwise experience when consuming animal products" and expands as follows:

"Many omnivores are (...) morally conflicted by the thought of their behaviour harming animals, while also enjoying meat as a desirable
staple in their diet. (....) resolution of this conflict can take one of two routes: one can reject meat consumption, bringing one’s behaviours into alignment with one’s moral ideals, or one can bring one’s beliefs and attitudes in line with one’s behaviour through various psychological maneuvers (......)."

What we hope to have offered, by exploring the power of taste and reference to it in literature, introspective discussions, and meat marketing, is some partial explanation and further evidence as to why this "niceness" seems for many people, though by no means all, to outweigh other less emotional considerations. As we go on to argue in our concluding speculative observations, however, this does not account for the variety and complexity of all attitudes to meat eating, and the role of taste in its justification.

3.2 Concluding observations

Our interview and focus-group data as a whole witness a spectrum of positions from those who give coherent reasons for their meat eating at one end, to vegans who eschew all animal food products at the other.

Our data suggests, however, that at the meat-eating extreme of this spectrum, self-justification is not always a self-deceptive "psychological maneuver" (Piazza et al., ibid.), as there are people who explicitly reconcile the practice with their ethical code and experience. (Unless of course one discounts their explicit reasoning as self-deception.) David Attenborough, for example, elsewhere in his interview, expressed support for the notion of human exceptionalism, despite his deep concern for species protection, and this underpins his argument for the morality of meat eating. Similarly, in the focus-group discussions we held with hunters, small-scale livestock farmers and independent butchers, there appeared to be no "meat paradox". Despite their knowledge and close contact with non-human animals, they nevertheless had no doubts about the moral acceptability of killing and eating them, also on the grounds of exceptionalism (though they were unfamiliar with this word). For those who share this view of human exceptionalism there is no ethical paradox about killing and eating animals per se. This does not mean however that they are unconcerned about the welfare and environmental effects of industrial meat production. Among our interviewees, for example, the Soil Association [NOTE13] policy director Peter Melchett (though himself a vegetarian) and the education officer at Laverstoke Organic Abattoir justify the eating of organically raised and slaughtered meat but categorically oppose industrially farmed meat on the grounds that in their view the greatest cruelty to industrially farmed animals is the nature of their life rather than their death. Whether or not one agrees with this position, such advocates of meat eating do confront the ethical and environmental issues raised by meat eating, and are as consistent as ethically committed vegans, who eat no animal products at all.

We thus have two positions which are backed up by rational argument at either end of the spectrum: human exceptionalist meat eaters who justify eating meat produced under certain conditions, and vegan animal rightists. While both positions are vulnerable to a number of counter-arguments, both groups are at least putting forward rational justifications of some kind. Yet in between these two poles of consistent behaviour are the large number of people who continue to eat meat, seldom thinking
of it as pieces of dead animal, and fail to connect the practice with their concerns, which they might express in other contexts, about the ethics of killing non-human animals, the welfare of farm animals, or the environmental impact of industrial meat production. For these people, such as the meat eaters in our mixed focus group, the process of meat production in contemporary urbanised society "separates the meat eater from the animal and the animal from the end product" making the animal itself an "absent referent" (Adams 14). What we hope to have developed in this article is some understanding of why, for such inconsistent meat eaters, this imbalance exists. For them, the emotional, nostalgic and symbolic power of taste, so vividly evoked in some literary texts, does seem to obscure all other considerations.

While humans have a tendency to justify their behaviour rationally, and a preference for reasons over emotions when accounting for what they do, this 'reasoning', especially perhaps in personal matters involving people's own bodies and identity, tends to be invoked post factum to endorse decisions which have actually been taken for essentially non-rational 'reasons'. And this indeed might qualify as a "psychological maneuver". This is well illustrated by a remark by one of our mixed focus-group participants when he explained his meat eating by saying:

I like meat too much I couldn’t, I like the taste of it. I think it’s part of our, we’re genetically meant to eat meat...

Here he begins with an admission of the emotional taste-related basis of his behaviour, and then immediately follows it up with a purportedly scientific fact, namely that human meat eating is 'genetically meant'. Meat marketers, as witnessed by the extraordinary frequency of their invocation of taste, appear to understand this well when they work on an assumption that purchasing and consumption decisions and practices are dictated more by emotion and sensuous pleasure than rationality.

This means that those campaigning against the eating of meat—whether on ethical, environmental or other grounds—are faced with a formidable force more powerful than rational argument. The implications for attempts to change a widespread and deeply entrenched behaviour are beyond the scope of this article, but acknowledgement and understanding of the nature of the problem must surely be of relevance in debates about the environmental impact of meat production and consumption.

Literary discourse reminds us that human experience is much more complex, and subject to forces far more powerful, than a purely rational approach assumes. Practices with environmental impact—driving a car, taking a long hot shower, lighting a coal fire, eating meat—are not subject only to cold cerebral decision making. They are also visceral and symbolic. This is something that literature acknowledges and marketing exploits, and should remind us that human decision making on matters of environmental impact are subject to much more than rational consideration of facts.

By bringing together a consideration of intense lived experience, of a kind which is often the focus of literary insight, with an issue which is all too often treated impersonally under the aegis of a rational approach to nutrition, ethics, and
economics, we hope to have contributed to Ecocriticism whose main concern is to demonstrate the mutual relevance of literary and environmental studies.

ACKNOWLEDGEMENT
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ENDNOTES
2. This page reference to the Routledge Classics edition.
3. In the USA it is estimated that 59% of vegetarians are women, and 41% men. http://www.vegetariantimes.com/article/vegetarianism-in-america/ (accessed August 15 2015). In the UK it is estimated that there are twice as many vegetarian women as men: http://www.agronet.gov.co/www/docs_agronet/2005114114415_Perfil_reino_unido.pdf (accessed August 15 2015).
4. By our phrase "the word taste" we mean—to put it in contemporary linguistics terminology—the verb taste (covering its lexemes, i.e. taste, tastes, tasting, tasted), and the noun taste (covering its lexemes, i.e. taste, tastes), and we shall treat these verb and noun forms together as one lemma. (A lemma is "a set of lexical forms having the same stem and belonging to the same major word class, differing only in inflection and/or spelling" (Francis and Kucera 1)). We focus on uses of this lemma which refer to the sensorial physical experience of taste, rather than to its extended metaphorical meaning of general discrimination; uses in the latter sense have been excluded from the analyses. We have also discarded other nouns derived from taste such as tastiness and taster, and adjectives such as tasty and tasteless, the verbal form tastes like x, and the add x to taste, which is often used in recipes. Our justification for these omissions is that ours this is not a corpus linguistics study as such, but uses corpus data to inform a more general qualitative analysis. By treating noun and verb as one lemma and examining its collocations, we depart from some corpus linguistic analysis, which argues that collocations are properties of lexical items rather than lemmas (Stubbs, 38).
5. We have compiled the concordances which follow using the software The Sketch Engine http://www.sketchengine.co.uk (accessed September 20, 2015).
6. Available through The Sketch Engine, enTenTen13 is one of "a new generation of corpora... created by Web crawling...The 'TenTen' designates the target sizes of the corpora which is 1010 (10 billion) words." https://www.sketchengine.co.uk/documentation/wiki/Corpora/TenTen (accessed 02/09/15).
8. A word is “unusually frequent” if it is statistically frequent relative to a reference corpus, using a statistical metric such as log likelihood (Dunning, 1993).
10. The UK’s principal organic certification and campaign organization.
11. A spokesperson for a leading animal rights campaign organization.
12. These exemplifications are used to characterise each N in the report of its publication at http://www.sciencedaily.com/releases/2015/05/150518121442.htm (accessed 03/08/15).
13. The main organic certification organisation in the UK.

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Carlos Williams, William. "This is just to say". *Selected Poems of William Carlos Williams*. Directions, 1985.
Cook, Guy, Matt Reed, and Alison Twiner. “‘But it’s all true!’ Commercialism and commitment in the discourse of organic food promotion.” *Text & Talk*. 29, no.2 (2009): 151-173.
Cook, Guy. “‘A pig is a person’ or ‘You can love a fox and hunt it’: innovation and tradition in the discursive representation of animals.” *Discourse and Society*, 26, no .5 (2015): 587-607.
Mizelle, Brett. Pig. Reaktion, 2011.
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APPENDIX: DATASETS IN [NAME OF PROJECT]

Corpus (8170K words)
1. scientific journal articles (6290K)
2. campaign materials (44K)
3. marketing materials (86K)
4. the mass observation archive (174K)
5. wildlife documentary transcripts (608K)
6. newspaper articles (470K)
7. zoo publicity etc. (23K)
8. interviews (194K)
9. focus groups (250K)

Interviews: (60-90 minutes)
1. Broadcaster (BBC) - Chris Packham
2. Broadcaster - Sir David Attenborough
3. Broadcaster and Professor of public engagement in science (University of Birmingham) - Alice Roberts
4. Senior Advocacy & Policy Officer of the Vegan Society
5. Chief Executive - Science Media Centre
6. Director of Campaigns of the Countryside Alliance
7. Director of marketing and campaigns of the RSPCA
8. Professor Sir Colin Blakemore
9. Chief Executive of Understanding Animal Research
10. Member of staff at an Animal Rights organisation
11. Policy Director of the Soil Association, Peter Melchett
12. Chair of the Animal Welfare Foundation
13. Director of Fundraising and Campaigns of the League Against Cruel Sports
14. CEO of the Badger Trust
15. Communications / Research xxx for the British Pest Control Association
16. Representative of the meat industry – Anonymous
17. Education Officer at Laverstoke Organic Abattoir Education Centre

Focus Groups (Each group met twice and discussions were on average one and a half hours long.)
1. participants aged 18-23
2. farmers
3. people with experience of hunting/fishing
4. butchers
5. pro animal rights
6. participants aged 60+
7. people (other than farmers) working with animals
8. non-meat eaters (vegans)
9. people working in an animal research facility
TABLES

Table 1: Illustrative Concordance lines for taste from enTenTen13

<table>
<thead>
<tr>
<th>Illustrative Concordance lines</th>
<th>Taste</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>and flavor giving you that juicy succulent</td>
<td>taste</td>
<td>I Looking for a place to host your</td>
</tr>
<tr>
<td>liked about our teas was not only the great</td>
<td>taste</td>
<td>, but also the funky colours of the teapot</td>
</tr>
<tr>
<td>to eat foods that are delicious for their</td>
<td>taste</td>
<td>, but are lacking of the essential nutrients</td>
</tr>
<tr>
<td>that my friends in Grenada don’t have great</td>
<td>taste</td>
<td>, but we've all been living on an island</td>
</tr>
<tr>
<td>ensuring their food looks as good as it</td>
<td>tastes</td>
<td>, clearly taking a leaf out of Paul Hollywood</td>
</tr>
<tr>
<td>almondmilk truly has a smooth and delicious</td>
<td>taste</td>
<td>, especially when mixed with other ingredients</td>
</tr>
<tr>
<td>cream and sit down to taste it. I love the</td>
<td>taste</td>
<td>, especially with the sour cream. HOWEVER</td>
</tr>
<tr>
<td>creamy and delicious. While I like the minty</td>
<td>taste</td>
<td>, I found it to be a little on the icy side</td>
</tr>
<tr>
<td>finest Certified Organic chocolate we’ve ever</td>
<td>tasted</td>
<td>, made from cocoa beans grown on Rainforest</td>
</tr>
<tr>
<td>eating some of the best pancakes we had ever</td>
<td>tasted</td>
<td>, Michael Johnson—who wrote the song “Bluer”</td>
</tr>
<tr>
<td>. They provide the local area with great</td>
<td>tasting</td>
<td>, seasonal veg from small organic or spray-free</td>
</tr>
</tbody>
</table>

Table 2: Concordance of all occurrences of taste in the Mixed Vegetarian Meat Eater Focus Group

<table>
<thead>
<tr>
<th>Illustrative Concordance lines</th>
<th>Taste</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>black pudding, haggis, like, I still do love the</td>
<td>taste</td>
<td>of them, don't get me wrong</td>
</tr>
<tr>
<td>that. yeah. Don’t get me wrong I love the</td>
<td>taste</td>
<td>of crackling. Love it, you know what</td>
</tr>
<tr>
<td>I like meat too much I couldn't, I like the</td>
<td>taste</td>
<td>of it. I think it's part of our, we're genetically</td>
</tr>
<tr>
<td>But if you just think, this is my dinner, it</td>
<td>tastes</td>
<td>well good, and that's where it stops,</td>
</tr>
<tr>
<td>as well is better?: You can taste it. Yeah it</td>
<td>tastes</td>
<td>better because it’s been fed more healthy</td>
</tr>
<tr>
<td>old, this is peak, optimum condition, you’ll</td>
<td>taste</td>
<td>great, death. Even though that thing might</td>
</tr>
<tr>
<td>have, sort of meat substitute products that</td>
<td>taste</td>
<td>like meat, do you try and do that</td>
</tr>
<tr>
<td>corn-fed chicken as well is better?: You can</td>
<td>taste</td>
<td>it P: Yeah it tastes better because it’s</td>
</tr>
</tbody>
</table>

Table 3: Illustrative Concordance lines from the Mass Observation Sub-Corpus

<table>
<thead>
<tr>
<th>Illustrative Concordance lines</th>
<th>Taste</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>and eat roast lamb or lamb chops, but I really do like the</td>
<td>taste</td>
<td>! I could certainly never eat rabbit, dog or cat as they</td>
</tr>
<tr>
<td>of creatures is quite different to ours in the West – if it</td>
<td>tastes</td>
<td>good, Vietnamese people will eat it with no qualms.</td>
</tr>
<tr>
<td>eat one kind of animal, but not okay to eat another that</td>
<td>tastes</td>
<td>equally as delicious? I support Cats Protection, and</td>
</tr>
<tr>
<td>on the plate and I often stuff them. Farmed fish may not</td>
<td>taste</td>
<td>as good as fish from the ocean, but I’m less willing to</td>
</tr>
<tr>
<td>out over fields full of them behind my house) and they</td>
<td>taste</td>
<td>delicious. While working in Nigeria I found a completely</td>
</tr>
<tr>
<td>lamb, fish and game which have led a better life and</td>
<td>taste</td>
<td>all the better for it. I do not eat fast food as I feel the</td>
</tr>
<tr>
<td>killed in a humane way. We’ve noticed that this food</td>
<td>tastes</td>
<td>better than intensely farmed food. We cannot often</td>
</tr>
<tr>
<td>eggs generally cost less than in the supermarket, and</td>
<td>taste</td>
<td>so much better. There are several independent retailers</td>
</tr>
<tr>
<td>have a good life before we eat them. Since the meat</td>
<td>tastes</td>
<td>better from well-treated animals, there’s no good</td>
</tr>
<tr>
<td>so many valid alternatives. But in the end, I missed the</td>
<td>taste</td>
<td>and the texture of real meat so much, I convinced</td>
</tr>
<tr>
<td>something especially but it is also because I enjoy the</td>
<td>taste</td>
<td>. I am very concerned about the welfare of the animals</td>
</tr>
<tr>
<td>and can’t go into a butchers shop. I don’t like the</td>
<td>taste</td>
<td>of meat either. Some veggies struggle to give up bacon</td>
</tr>
</tbody>
</table>
prior experience with the food-item, and its general taste properties (see Grill and Berridge, 1985). Thus, this value 
for food rewards as measured, for instance, by the taste reactivity paradigm (see references in Berridge and 
1995). Much less sucking is found when the calves taste either water or a suspension of grain and the amount of 
, 1997a) (Fig. 2). This suggests that it is specifically the taste of milk that is important in eliciting sucking. In a number 
probably consumed enough to create a conditioned taste aversion (Poage et al., 2000,Provenza, 1995). Intake then 
mechanisms affecting food preferences such as taste sensitivity, enzyme deficiencies associated with nutrient 
2000). These include the development of conditioned taste aversions (Provenza, 1996). The grazing of legume-rich 
status (e.g. Berry, 1970). Their other chemo-sense, taste appears broadly similar to our own, although mice do not 
mice do not respond to some compounds which taste sweet to us (Brouwer and Hellekant, 1973 cited by 
find disgustingly bitter (e.g. ‘Bitrex’; Rentokil, 2001). Taste is used to identify food type and quality (Crawley, 2000): 
but more often, predators acquire an aversion to the taste of the injected chemical rather than to egg’s taste, which 

Table 5 – Illustrative Concordance lines for Taste in Marketing Sub-Corpus

| who have asked where they may get the very special taste of Cumbrian Meats. No-one quite knows what makes | taste |
| and unique flavour, which is so delicious you can almost taste the meadow in the meat. It is one of Britain’s most | |
| “Cumbrian Fellbred Meat”. To offer you Britain’s best grasses of the Cumbrian fells which gives it its distinctive taste, “said Dudley. Udales has been working closely with its | |
| succulent, tasty and full of flavour, meat as it used to taste !! If you don’t agree, let us know as all our products | |
| we are passionate about making ”ham how it used to taste ”. To ensure the quality of our products, all the meat | |
| smoked over oak chips. This enhances the ham’s natural taste with a subtle smoke flavour and aroma. This ham is the | |
| or artificial flavourings. The result is a ham that ” tastes like it used to”. This ham is perfect for all occasions | |
| been reared in should help improve tenderness and taste Packington Fields Farm aims to sell its produce to local | |
| and a natural environment produces a happier, better tasting chicken. Free Range Chicken products are: FC1 - | |

Table 6: Frequency of taste by Sub-Corpus. (Figures include metaphorical as well as literal uses of taste. As a point of comparison, taste occurs 102.44 times per million in the ententen2013 corpus.)

<table>
<thead>
<tr>
<th></th>
<th>Marketing</th>
<th>MO data</th>
<th>Journals</th>
<th>Newspapers</th>
<th>Broadcasts</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of occ.</td>
<td>230</td>
<td>29</td>
<td>71</td>
<td>77</td>
<td>75</td>
</tr>
<tr>
<td>Freq. per million</td>
<td>2,315.14</td>
<td>147.40</td>
<td>9.51</td>
<td>134.45</td>
<td>103.16</td>
</tr>
</tbody>
</table>